

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 10-073823

(43)Date of publication of application : 17.03.1998

(51)Int.Cl.

G02F 1/1337

C09K 19/02

G02B 5/30

G02F 1/13

G02F 1/1335

G02F 1/1343

(21)Application number : 08-231660

(71)Applicant : HITACHI LTD

(22)Date of filing : 02.09.1996

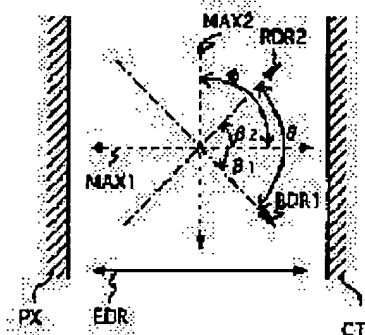
(72)Inventor : OTA MASUYUKI
KONDO KATSUMI

(54) ACTIVE MATRIX TYPE LIQUID CRYSTAL DISPLAY DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To make it possible to embody the visual field angle equiv. to that of a cathode ray tube and to deal with animation images by specifying the initial orientation direction of the liquid crystal molecules of a liquid crystal layer at a specific angle with an electric field impression direction at the boundary on an upper substrate side and specifying this direction at a specific minus angle with the electric field impression direction at the boundary on a lower substrate side, thereby attaining the arrangement twisted at the specific angles at the time the voltage is not impressed.

SOLUTION: The oriented film on the lower substrate side is rubbed in a rubbing direction RDR1 and the oriented film in an upper direction is rubbed in a rubbing direction RDR2. The direction of a range of ≥ -90 to $\leq 90^\circ$ is set as the initial orientation direction with respect to the intra-surface direction of a transverse electric field in either of the rubbing direction RDR and the direction reverse therefrom. Namely, the initial orientation angle β_1 formed by the rubbing direction RDR1 of the oriented film on the lower substrate side and the impressed electric field direction EDR is set at -45° and the initial orientation angle β_2 formed by the rubbing direction RDR2 of the oriented film on the upper substrate side and the impressed electric field direction EDR is set at 45° . The arrangement twisted θ ; at 90° between the upper and lower substrates is thus obtd. As a result, the wider visual field angle is obtd.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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